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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant	:	Chikara Sugai et al.	
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Examiner	:	Yaritza Guadalupe-McCall	
Title	:	DISPLACEMENT MEASURING INSTRUMENT	
Docket No.	:	KIN-15384	
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Mail Stop Appeal Brief – Patents
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APPELLANTS' BRIEF
(37 CFR § 43.37)

This brief is submitted in support of the Reinstatement of Appeal/Notice of Appeal dated January 9, 2006. Please apply the previously paid appeal brief fee (paid on July 29, 2005 with the previously-filed appeal brief in this application). If any additional fees are due for this filing, please charge such additional required fees to our Deposit Account No. 18-0160, our order No. KIN-15384.

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Date

David E. Spaw
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This brief contains the items under the following headings in the order set forth below:

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I. REAL PARTY IN INTEREST

MITUTOYO CORPORATION, having a place of business at 20-1, Sakado 1-chome, Takatsu-ku, Kawasaki-shi, Kanagawa 213-8533, Japan is the real party in interest and the assignee of all right, title, and interest to the invention throughout the world. An assignment from inventors Chikara Sugai and Toshiyuki Shinohara has been recorded with the United States Patent and Trademark Office and can be found at Reel 014449 and Frame 0669.

II. RELATED APPEALS AND INTERFERENCES

Applicant does not know of any related appeals and/or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

Four (4) claims are currently pending in this application.

B. Status of the Claims

1. Claims previously canceled: None.
2. Claims withdrawn from consideration but not cancelled: None.
3. Claims pending: 1-4.
4. Claims allowed: None.
5. Claims rejected: 1-4.
6. Claims objected to: None.
7. Claims indicated as allowable if the § 112 rejections are overcome: None.

C. Claims on Appeal

The claims on appeal are: Claims 1-4.

IV. STATUS OF AMENDMENTS

A Response to the Final Office Action of March 2, 2005 was filed on April 26, 2005. The Examiner has indicated in an Advisory Action dated May 13, 2005 that the Response did not place the application in condition for allowance because, in the Examiners opinion, the proposed amendments raise new issues that would require further consideration and/or search, and they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal. In response to the Final Office action and the Advisory Action, a Notice of Appeal was filed on June 1, 2005, and an Appeal Brief was filed on July 29, 2005. The Examiner then reopened prosecution by issuing a new Office action on October 7, 2005. Applicant reinstated the present appeal by filing a Notice of Appeal on January 9, 2006.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The presently claimed invention relates to a displacement measuring instrument having a dial gauge and a manually operable lifting lever, where a spindle is forcibly shifted by the lifting lever. The dial gauge has a gauge body (i.e. a measuring instrument body). The spindle penetrates the gauge body to be slidable in the longitudinal direction thereof. *(Specification, page 5, lines 20 - page 6, line 1)* The lifting lever has a drive end and a manual end opposite thereto. *(Specification, page 6, lines 7-8)* In about the middle section between the drive end and the manual end, the lifting lever is swingably supported by a lever support and an engaging member. *(Specification, page 6, lines 14-16)* The lever support is fixed to the engaging member. The engaging member is provided on the outer circumference of the gauge body, to be engaged with the lever support, e.g. with a projection extending along the outer circumference to be engaged with, e.g., a dovetail groove. *(Specification, page 7, lines 2-5)* The engaging member is integrated with the gauge body by, for instance, die-casting. Alternatively, the engaging member may be formed independent of the gauge body and fixed on the gauge body by welding, etc. In this way, the engaging member is provided on the outer circumference of the instrument body without boring the outer circumference. In order to engage the lever support with the engaging member, the dovetail groove of the lever support is inserted to the projection of the engaging member and is slid by the length of the projection. *(Specification, page 7, lines 6-11)* In this way, the engaging member is detachable from the lever support.

A detachment stopper for preventing the lever support from being detached from the engaging member when the lever support is engaged with the engaging

member is provided on an end of the engaging member on the side of the manual end of the lifting lever. *(Specification, page 7, lines 12-15)* Further, the lever support is preferably made of a synthetic resin molding. *(Specification, page 7, lines 2-11)*

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Claim 1 is rejected under 35 USC 102(b) as being anticipated by US 5,421,101 to Rank.

2. Claims 2-3 are rejected under 35 USC 103(a) as being unpatentable over US 5,421,101 to Rank in view of US 5,450,909 to Stevenson.

3. Claim 4 is rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 5,421,101 to Rank in view of US 6,187,242 to Onoda.

VII. ARGUMENTS

A. The Rejection of Claim 1 as being anticipated by Rank

In order for a claim to be anticipated by a reference, the reference must show each and every element of the claim. It is respectfully submitted that Rank does not teach every element of claim 1.

1. Rank fails to show a distinct "engaging member" as claimed.

Rank discloses a type of crimp measuring gauge device having a spindle 12, a spindle lift handle 15 including a lift leg 305 and a thumb lever 250 that pivots about a fulcrum 300. It is clear from Fig. 1 of Rank that the fulcrum 300 is connected directly to the gauge 18. If Rank's fulcrum 300 could be interpreted as a type of "lever support," therefore Rank cannot be construed as showing an intervening "engaging member" that "detachably engages and supports the lever support" as required by claim 1.

2. Rank does not show an engaging member on an "outer circumference" of the instrument body as claimed.

It is clear from inspection of Fig. 3 of Rank that the fulcrum 300 is connected to a back side of a gauge body 18. Therefore, even if Rank did disclose an "engaging member," Rank could not be relied upon to show "an engaging member provided on an outer circumference of the instrument body" (emphasis added) as required by claim 1.

3. Rank does not show an engaging member that "detachably" engages and supports the lever support as claimed.

It was shown in the original specification and the Amendments that the present engaging member with detachable lever support is used to prevent minute dust particles from invading the instrument body, which affects the precision of the instrument, as illustrated in the present prior art Figs. 6 and 7. However, the Examiner has taken a dismissive approach toward this inventive feature, stating that "any structure may be considered to be 'detachably.'" Nonetheless, Rank fails to show a distinct "engaging member" on an "outer circumference" that "detachably" engages a distinct "lever support," as required by claim 1, so the Examiner's argument is moot.

B. The Rejection of Claims 2-3 under 35 USC §103(a) as being unpatentable over Rank in view of Stevenson

In order to establish a prima facie case of obviousness under 35 U.S.C. §103, the cited references must teach each and every claim limitation or elements of the rejected claims. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The rejection of dependent claims 2 and 3 is in error and should be reversed, because each and every limitation of the claimed invention is not taught or suggested by the combination of Rank in view of Stevenson.

Neither Rank nor Stevenson, taken alone or in combination, can be relied upon to show a displacement measuring instrument having "an engaging member provided on an outer circumference of the instrument body that detachably engages and supports the lever support," as required by independent claim 1, from which claims 2-3 depend. In this regard, the deficiencies of the base Rank reference, set forth hereinbefore, are expressly incorporated by reference and will not be repeated hereinafter. Although it is considered apparent that Stevenson fails to teach the features of claim 1 that are lacking from Rank, the deficiencies of Stevenson will be discussed briefly before claims 2-3 are addressed.

Stevenson is directed to a removable grade determining and apparatus 10 that is supported by a mounting assembly 16. On page 5 of the Office action, the Examiner states that "Stevenson discloses a device having a mounting assembly (16) having a dovetail arrangement including a support (54), a groove (56) formed on said support and a projection (52) formed on the engaging member (*32) to be engaged with the groove, in order to removably secure the device in place during use and allow easy removal for safe storage from contaminants (See Column 4, lines 32 – 34). Stevenson also discloses a detachment stopper (62) which helps in

properly placing the apparatus at a desired location and which prevents the lever support from begin detached from the engaging member when the lever support is engaged with the engaging member and is slid by a predetermined distance is provided on the engaging member."

1. Stevenson fails to show a distinct "engaging member" set forth in claim 1.

As noted previously, Stevenson is directed to a removable grade determining and apparatus 10 that is supported by a mounting assembly 16. As such, it is considered apparent that Stevenson does not provide the basic structural components of the present invention. For example, Stevenson does not teach or suggest the "spindle penetrating the instrument body"; the "lifting lever ...shifting the spindle"; the "lever support" or the "engaging member" set forth in claim 1.

It is considered apparent that Stevenson does not teach or suggest anything that is remotely similar to the "engaging member ... that detachably engages and supports the lever support", as required by claim 1 and lacking in Rank. Stevenson does not provide any structure related to a "lever support" of the present invention and, therefore, does not provide anything to engage and support the 'lever support'.

2. Stevenson does not show an engaging member on an "outer circumference" of the instrument body as claimed.

Stevenson does not include anything mounted to an 'outer circumference" of the grade measuring device.

3. Stevenson does not show an engaging member that "detachably" engages and supports the lever support as claimed.

Insofar as Stevenson fails to teach the engaging member mounted to the outer circumference of the instrument body, Stevenson cannot be cited as teaching detachable mounting of such an engaging member.

4. A combination of Rank and Stevenson is unmotivated, would destroy the device, and would still fail to meet the limitations of claim 1.

In the last sentence on page 5 of the Office action, the Examiner states that::

> "Therefore, it would have been within the scope of an ordinary skill in the art to modify the instrument disclosed by Rank by replacing the engaging member with a dovetail arrangement including a detachment stopper as taught by Stevenson in order to removably secure the device in place during use and allow easy removal for safe storage from contaminants (See Column 4, Lines 32 – 34) and since these are both well known fasteners that are both used alternatively to securely hold a structure to a surface."

However, it is not true that Applicant has simply used a well known alternate type of engaging member, as proposed by the Examiner. Stevenson is from a highly divergent, non-analogous area of technology. Other than associating Stevenson's "dove-tailed block member 32" with the present "engaging member," the Examiner has not proposed how the Rank device is to be modified to include this block member 32. It is noted that Stevenson's dove-tail block is used to mount the device to a support, whereas the engagement between the lever arm and the engagement member of the present invention is used to assemble the device of the present invention – not to mount the device to a support. Therefore, if Rank were combined with Stevenson, the result would be to provide a separate dovetail block member to mount the Rank measurement device to a fixed support. While this might be useful in some situations, it is clearly not what is defined by the invention of claim 1.

Notably, there is no reason in the art of record to lead one skilled in the art to replace the handle mounting fulcrum of Rank with any dove-tail type joint of Stevenson.

Further, if the basic configuration of Rank's device is to be somehow reconfigured as proposed, the Examiner has not explained how these extensive modifications are to be carried out without destroying the operability of the Rank device. There is no clearly apparent manner in which the fulcrum 300 and a spindle lift handle 15 including a lift leg 305 and a thumb lever 250 can be relocated as proposed, and still result in an operable device. Such arbitrary movement of parts would actually destroy the function of the Rank device. Indeed, extensive additional modification would be required to restore the combined device to operability, well beyond the disclosures of these references.

In light of the foregoing, it is submitted that there is no reason, suggestion, or motivation in the art of record to combine Rank and Stevenson in a manner required to arrive at the invention defined in claim 1, from which claims 2 and 3 depend. It is further submitted that, insofar as each of the references fail to teach or suggest the same elements of the claimed invention, even if Rank and Stevenson could somehow be combined as proposed by the Examiner, the combination would still fail to result in a device having the features required by claim 1. In view of the above, it is considered apparent that a prima facie case of obviousness has not been established for claim 1, and therefore claim 1 and claims 2-3 that depend therefrom and that have been rejected based upon this combination of references, are allowable.

Further, claim 2, which depends directly from claim 1, recites:

wherein the lever support and the engaging member are engaged by a dovetail arrangement including a groove formed on one of the lever support and the engaging member along the outer circumference of the measuring instrument body

and a projection formed on the other of the lever support and the engaging member to be engaged with the groove.

While Stevenson does show a type of dovetail and groove arrangement, it was shown above that Stevenson fails to show a distinct "engaging member" on an "outer circumference" of an instrument body. So the proposed combination of Rank and Stevenson would still fail to result in a device having all the limitations required by claim 2. Notably, the combination could not provide the dovetail and groove arrangement between the lever support and the engaging member.

Further, claim 3, which depends directly from claim 2, recites:

wherein a detachment stopper that prevents the lever support from being detached from the engaging member when the lever support is engaged with the engaging member and is slid by a predetermined distance is provided on the engaging member.

While Stevenson does show a type of "stop member 62" that the Examiner reads onto the present detachment stopper, it was nevertheless shown above that Stevenson fails to show a distinct "engaging member" on an "outer circumference" of an instrument body. So the proposed combination would still fail to result in a device having all the limitations required by claim 3. Notably, the combination could not provide the detachment stopper to prevent detachment of the lever support from the engaging member, as required by claim 3.

In view of the above, it is considered apparent that the Examiner has failed to establish a prima facie case of obviousness for claims 2 and 3.

C. The Rejection of Claim 4 under 35 USC §103(a) as being unpatentable over Rank in view of Onoda

In order to establish a prima facie case of obviousness under 35 U.S.C. §103, the cited references must teach each and every claim limitation or elements of the rejected claims. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The rejection of dependent claim 4 is in error and should be reversed, because each and every limitation of the claimed invention is not taught or suggested by the combination of Rank in view of Onoda.

Claim 4, which depends directly from claim 1, recites:

wherein the lever support is a synthetic resin molding.

While Onoda does show an incidental disclosure of a synthetic resin material, Onoda fails to supply the deficiencies of the base combination as applied against independent claim 1. Namely, Onoda fails to show a distinct "engaging member" on an "outer circumference" of an instrument body. Insofar as these same elements are lacking in Rank, as discussed hereinbefore, the proposed combination would still fail to result in a device having all the features of claim 4. In view of the above, it is considered apparent that a prima facie case of obviousness has not been established for claim 4.

CONCLUSION

The prior art rejections of the cited claims should be reversed because the cited references doe not, either alone or in combination, disclose or suggest the invention defined by claims 1-4. The rejection of claim 1 as being anticipated by Rank is in error, as numerous features defined in claim 1 are not provided by Rank. Similarly, the rejection of claims 2-3 under 35 USC 103(a) as being obvious over Rank in view of Stevenson is in error, as Stevenson does not correct the deficiencies of Rank as it relates to claim 1, let alone provide the structural features defined in claims 2-3. Finally, the rejection of claim 4 under 35 USC 103(a) as being obvious over Rank in view of Onoda is in error as Onoda does not correct the deficiencies of Rank as it relates to claim 1, from which claim 4 depends, and does not provide the structural features defined in claim 4.

For the reasons set for the herein, the rejections of the claims 1-4 of the present application are in error and must be reversed.

Respectfully submitted,

RANKIN, HILL, PORTER & CLARK LLP

By _____
David E. Spaw, Reg. No. 34732

4080 Erie Street
Willoughby, Ohio 44094-7836
(216) 566-9700

VIII. CLAIMS APPENDIX

1. (Previously Presented) A displacement measuring instrument, comprising:

an instrument body;

a spindle penetrating the instrument body to be slidably supported by the instrument body to be displaced;

a lifting lever manipulated from the outside to forcibly shifting the spindle;

a lever support that supports an end of the lifting lever opposite to a drive end of the lifting lever that is in contact with the spindle; and

an engaging member provided on an outer circumference of the instrument body that detachably engages and supports the lever support.

2. (Original) The displacement measuring instrument according to claim 1,

wherein the lever support and the engaging member are engaged by a dovetail arrangement including a groove formed on one of the lever support and the engaging member along the outer circumference of the measuring instrument body and a projection formed on the other of the lever support and the engaging member to be engaged with the groove.

3. (Original) The displacement measuring instrument according to claim 2,

wherein a detachment stopper that prevents the lever support from being detached from the engaging member when the lever support is engaged with the engaging member and is slid by a predetermined distance is provided on the engaging member.

4. (Original) The displacement measuring instrument according to claim 1, wherein the lever support is a synthetic resin molding.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

NONE